REMARKS

As a preliminary matter, Applicant respectfully traverses the outstanding Office Action in its entirety as being nonresponsive. All of the outstanding rejections are based, at least in part, on the same Taniguchi reference (U.S. 5,746,939) that was cited by the Examiner in an earlier Office Action (as acknowledged on page 2 of the outstanding Office Action). The Examiner, however, has already withdrawn the rejections that were based on this Taniguchi reference based on the claim amendments and arguments made in Amendment B, filed June 17, 2005. All of these meritorious arguments are still of record in this case, and all of them remain entirely unchallenged on the record by the Examiner. Accordingly, because the outstanding Office Action repeats the previous rejections without even attempting to answer the arguments that already defeated such rejections, the Office Action is non-responsive, at the very least.

It is therefore inappropriate for the Examiner to reassert his reliance on Taniguchi without attempting to first challenge such meritorious arguments of record that sufficiently demonstrated how Taniguchi does not read upon the present claims. Section 707.07(f) of the MPEP places a specific burden upon the Examiner to, when repeating a previous rejection, first answer all of the meritorious arguments presented by Applicant traversing the rejection. This burden is not relieved by simply withdrawing a prior art reference from consideration for a short time, only to reinstate it later. The claim language that was added in Amendment B is still present in the pending claims.

By withdrawing the earlier rejections, the Examiner has already implicitly admitted that the present claims were patentable over Taniguchi, and particularly with

respect to the same features of Taniguchi on which the Examiner now relies. Because the outstanding Office Action does not indicate that the Examiner has actually reconsidered his earlier decision to withdraw the previous rejections, the withdrawal is still an implicitly operative admission by the Examiner that Taniguchi does not read upon the present claims. Accordingly, all of the outstanding rejections should be withdrawn for at least these reasons.

As a second preliminary matter, claim 14 stands objected to for informalities. Specifically, the Examiner correctly notes that several words in claim 14 were inadvertently removed from the claim (in Amendment C, filed November 14, 2005) by mistake. Accordingly, the correct claim language has been restored herein, and reconsideration and withdrawal of the objection are therefore respectfully requested in light of this amendment.

Claims 1-6 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Shimizu et al. (JP 2000-275685) in view of Taniguchi. Applicant respectfully traverses this rejection for at least the reasons of record, those discussed above, and as follows. A *prima facie* case of obviousness has not been established against the present invention. All of the limitations of the claims are not taught or suggested by either prior art reference, taken alone or together, and no teaching or suggestion in the cited art has been identified that would support the obviousness of combining the two references.

The Examiner acknowledges that Shimizu fails to teach or suggest the temperature range of the cholesteric phase of the claimed phase sequence featured in claim 1. The Examiner relies only upon Taniguchi for allegedly disclosing such features.

As clearly argued in Amendment B though, and never challenged on the record by the Examiner, Taniguchi remains entirely silent regarding any temperature range for the cholesteric phase of the particular phase sequence recited in the present invention.

The cholesteric temperature range cited in Taniguchi cannot actually be applied to the cholesteric phase of the presently claimed phase transition series, because Taniguchi expressly teaches that the cited range is part of a very different series. Taniguchi discloses four distinct phase transition series in the cited portion of its disclosure (col. 3, lines 1-10), but Taniguchi only discusses any temperature range for the cholesteric phase with respect to series (i) (Iso-Ch-SmA-SmC). As clearly explained to the Examiner in Amendment B though, only series (iii) from the reference (Iso-Ch-SmC) can reasonably be interpreted as relevant to claim 1. Taniguchi clearly describes that the series (i) and (iii) are distinct from one another, and Taniguchi never describes any temperature range for the cholesteric phase of series (iii).

Taniguchi even further describes how the respective liquid crystal materials used to exhibit the series (i) and (iii) are also chemically and structurally different from one another. (See col. 3, lines 17-23; col. 4, lines 55-65). Accordingly, there could be no reasonable basis to simply presume that a cholesteric temperature range described with respect to series (i) could necessarily be the same with respect to the different materials used for series (iii). Taniguchi simply never teaches or suggests any temperature range for the cholesteric phase of the Iso-Ch-SmC series (iii), and therefore the requirements of Section 2143.03 of the MPEP have not been met. The rejection should therefore be withdrawn for at least these reasons as well.

The rejection of claims 1-6 should also be withdrawn because the requirements of Section 2143.01 of the MPEP have not been met either. Section 2143.01 requires that the Examiner, when attempting to combine references based on a theory of obviousness, first be able to cite to some objective teaching or suggestion in the art that would affirmatively motivate one of ordinary skill in the art to make the combination actually proposed by the Examiner. Evidence that can merely justify why one particular reference, by itself, may be useful does not satisfy this requirement. By definition, every patent should describe why its own particular invention would useful. According to Section 2143.01, the cited evidence must instead affirmatively support the desirability of actually combining one of the cited references with the other. In the present case, however, no such objective evidence appears anywhere on the record.

The only evidence cited by the Examiner to justify the proposed combination is the Taniguchi's text at col. 2, lines 27-32. This portion of the reference, however, has no relevance to why Taniguchi could or should be combined with Shimizu. The Examiner appears to rely on this text from Taniguchi merely for its statement that Taniguchi's *own invention* has "improved display and driving characteristics." Such a rationale hardly justifies the proposed combination.

It can be taken as a given that any device in this particular field of art would seek a purpose to have "improved display and driving characteristics." Such a well known common goal though, does not explain how or why two very different inventions can, or should, be combined. Instead, the Examiner was required to cite to some objective evidence in the art that would explain to one of ordinary skill how the specific

combination of these two references would accomplish the well known goal. In the present case though, the Examiner appears to have simply presumed the obviousness of the combination based only on the stated common purpose. Section 2143.01 expressly rejects such presumptions. The references must still affirmatively show the desirability of the proposed combination, or obviousness cannot be established. Accordingly, because no such showing has been made in this case, the rejection of claims 1-6 is further deficient on its face for at least these reasons, and again should be withdrawn.

Nevertheless, although no further amendments to the claims should be necessary based on the clear deficiencies in both the outstanding rejection and the Office Action itself, as discussed above, Applicant has further amended independent claim 1 herein purely in an effort to expedite this stalled prosecution. The stall in the prosecution of the present case is entirely on the part of the Patent Office, as also discussed above, but Applicant submits that the Examiner should find that the clarifying amendments to claim 1 should sufficiently remove all of the Examiner's outstanding questions regarding his reading of the present claims and the cited prior art.

Specifically, claim 1 now alternatively recites the claimed temperature width according to actual endpoints preferred for its range, instead of according to a minimum distance between such endpoints, as previously recited. The Examiner should find that this alternative wording to the limitation actually broadens the scope of the claim, at least in some respects. In any event, the new wording to this limitation of claim 1 could not read upon either cited prior art reference, regardless of how reasonable or broad the Examiner's interpretation of the references.

Claim 7 stands rejected under 35 U.S.C. 103(a) as being unpatentable over Shimizu in view of Taniguchi, and further in view of Yoshinaga et al. (U.S. 6,791,527). Applicant respectfully traverses this rejection for at least the reasons of record, those discussed above, and as follows. Claim 7 depends from independent claim 1, and therefore includes all of the features of the base claim, plus additional features. Claim 7 should therefore be in condition for allowance for at least the reasons discussed above with respect to the rejection of claim 1 based only upon Shimizu and Taniguchi.

Claims 14-15 and 17 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Shimizu and Taniguchi, in view of Asao et al. (U.S. 2002/0018171). Applicant therefore traverses this rejection as well for at least the reasons of record, those discussed above, and as follows. A *prima facie* case of obviousness has not been established against these claims. None of the three cited references teaches or suggests a temperature range for the cholesteric phase of the recited phase sequence, or of the kept period, both as featured in claim 14. Additionally, no evidence has been submitted either that would justify the proposed combination of the three references.

As discussed above, only Taniguchi is relied upon by the Examiner for allegedly teaching a temperature range for the cholesteric phase a phase sequence of the present invention. As clearly demonstrated on the record though, Taniguchi does not teach or suggest any cholesteric phase temperature range for either of the two phase sequences featured in the present claims. Taniguchi clearly describes how all four of its disclosed phase sequences are distinct from one another, and even result from entirely different materials being utilized. The parameters of one phase sequence therefore,

simply cannot be applied to another sequence without a clear teaching or suggestion to do so. Taniguchi provides no such teaching or suggestion, and the Examiner does not assert that either Shimizu or Asao can resolve this deficiency. Accordingly, the rejection of claim 14 (and claims 15 and 17) should be withdrawn for at least these reasons.

The rejection should also be withdrawn because none of the three cited references teaches or suggests the method step of claim 14 that features the temperature range of the recited kept period. The Examiner correctly acknowledges that neither Shimizu nor Taniguchi even teaches or suggests a separate and distinct "kept period" in addition to the cooling periods described therein. Only Asao is relied upon for allegedly teaching such features According to the Examiner's own admissions, however, Asao cannot read upon these particular features of the present invention.

The Examiner's reliance upon Asao is initially deficient because the reference appears to have been clearly misread. The present Office Action again confuses a transition temperature of a phase with its *temperature range*. Specifically, on the last line of page 7 of the outstanding Office Action, the Examiner asserts that the "liquid crystal is kept within a temperature *range* (61.2 degrees) showing the cholesteric phase during cooling." (Emphasis added). Paragraph [0098] of Asao, however, clearly describes that this cited temperature (61.2 degrees C) is the phase transition temperature of the cholesteric phase, and not a temperature range at which the liquid crystal is kept. Asao has therefore been clearly misinterpreted.

Moreover, according to the Examiner's further acknowledgements, even if the reference had not been misinterpreted, Asao could not otherwise read upon the

present invention. The Examiner admits (second full paragraph on page 7) that the maximum temperature range of Taniguchi's cholesteric phase (series (i) only) is between 58 and 92 degrees C. Even though this particular temperature range is not applicable to the phase sequences recited in the present invention, the Examiner's specific reliance on this portion of Taniguchi directly defeats the attempt to combine Taniguchi's disclosure with that of Asao. The two references are incompatible in such a combination.

The Examiner cites only paragraph [0106] of Asao for allegedly teaching any "kept" temperature ranges for its liquid crystal composition. Paragraph [0106] though, directly teaches away from any combination with the cited temperature range of the cholesteric range in Taniguchi. Asao only teaches two kept temperatures in the cited portion, namely, 100 degrees C and -30 degrees C. Both of these disclosed temperatures are thus clearly outside the cited range of 58-92 degrees C from Taniguchi. Accordingly, Asao simply cannot read upon the featured step of claim 14 of the present invention that recites a kept temperature range for the cholesteric phase (or the chiral nematic phase). The outstanding rejection of claims 14-15 and 17 is therefore further traversed for at least these reasons, and again should be withdrawn.

The rejection of claims 14-15 and 17 should still further be withdrawn because no objective evidence has been cited from any of the three references to justify their combination. The particular combination of Shimizu with Taniguchi is deficient for the reasons discussed above. The proposed addition of Asao to these other two references is equally deficient for similar reasons. The Examiner's citation to paragraph [0012] of Asao gives no indication of how or why one of ordinary skill in the art would

be motivated, not merely to *utilize* Asao's disclosure, but to actually combine it with the teachings of both of the other two references. Paragraph [0012] only states a goal "to provide a chiral smectic liquid crystal device providing an improved contrast." The mere assertion of such a goal, however, provides no direction for the proposed combination could *accomplish* such a goal.

The Examiner's only other cited support for the combination is paragraph [0044] of Asao. This portion, however, also fails to satisfy the requirements of Section 2143.01. Contrary to the Examiner's assertion, in the first full paragraph on page 8, paragraph [0044] does not discuss "cooling the liquid crystal at a rate of 5 [degrees] C/minute to obtain a monostabilized state under no voltage application." The cited text only mentions one of the phase sequences (Iso-Ch-SmC) featured in the present claims but, as previously pointed out in Amendment B, Taniguchi expressly teaches away from using this particular phase transition series. Accordingly, the proposed combination of Asao with Taniguchi cannot be justified when Taniguchi expressly teaches away from the particular portion of Asao upon which the Examiner relies. The rejection should be withdrawn for still these further reasons.

For all of the foregoing reasons, Applicants submit that this Application, including claims 1-7, 14-15, and 17, is in condition for allowance, which is respectfully requested. The Examiner is invited to contact the undersigned attorney if an interview would expedite prosecution.

Respectfully submitted,

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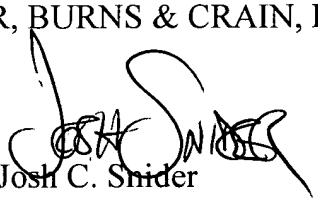
By 
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